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A case of septic shock in a parturient

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A Case of Septic Shock in a Parturient

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INTRODUCTION

Septic shock though uncommon in pregnancy is associated with high maternal morbidity and mortality and therefore needs early diagnosis and aggressive management. We present a case of a parturient who presented with acute hypoxia and was finally diagnosed with septic shock with ARDS (acute respiratory distress syndrome) secondary to chorioamnionitis.

CASE DESCRIPTION

A 40 year old diabetic female presented with acute abdominal pain. She was diagnosed as pregnant in active labor with a gestational age of 24-28 weeks by ultrasonography. Patient developed acute hypoxia, associated with hypotension and tachycardia during transport to the labor floor. With a presumptive diagnosis of pulmonary embolism/amniotic fluid embolism, the decision was made to secure the airway. A rapid sequence induction was done with etomidate and succinylcholine and airway was secured. During induction patient had a cardiac arrest with pulseless electrical activity and was successfully resuscitated according to ACLS protocol. A nonviable fetus was delivered with purulent discharge. A final diagnosis of septic shock with ARDS secondary to chorioamnionitis was made.

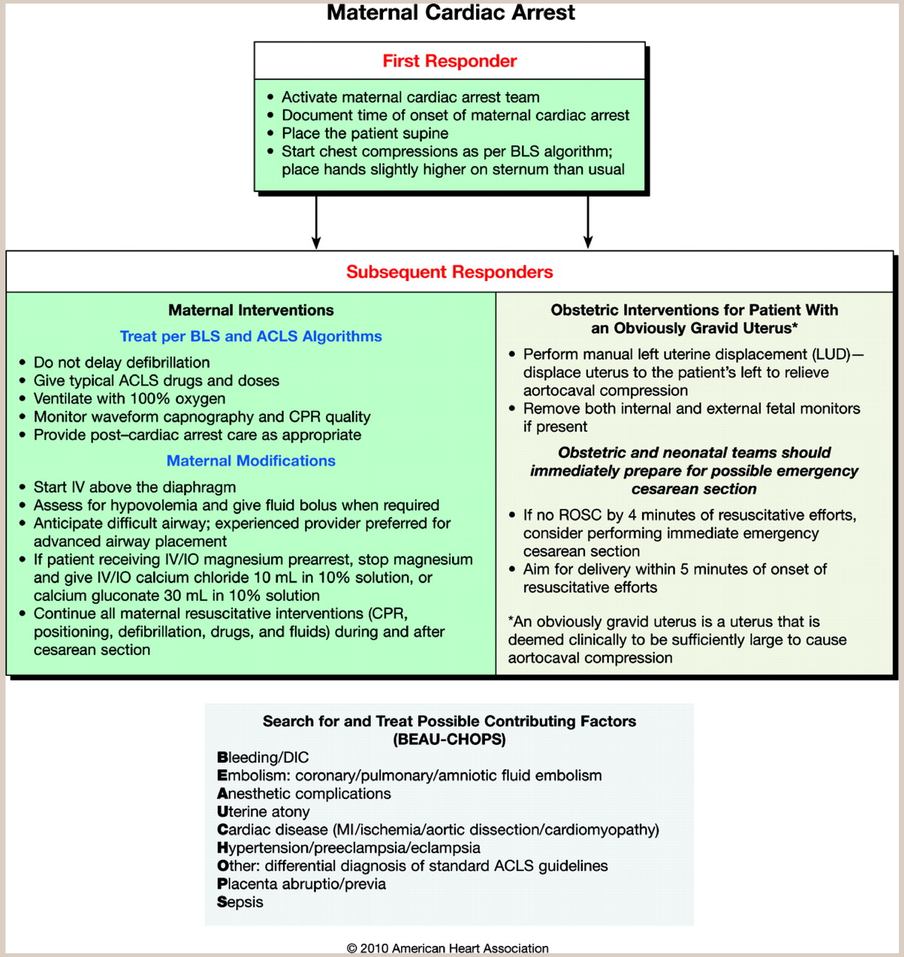

Figure 1 Reprinted with permission © 2011, American Heart Association, Inc.[1]

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DISCUSSION

When a parturient presents with hypoxia possible etiologies like pulmonary embolism, amniotic fluid embolism, pregnancy induced hypertension, hemorrhagic shock secondary to placenta previa and placenta abruption need to be considered. A multidisciplinary team approach with obstetrics, maternal fetal medicine, anesthesiology and critical care teams is vital in these situations. The pneumonic "BEAU CHOPS" is a useful reminder of differential diagnosis in the management of critically ill parturients.

Etomidate is a frequently used induction agent in critically ill patients because of its cardiovascular stability, although its inhibition of catecholamine release may still produce profound hypotension.[2] Transient suppression of adrenal function with etomidate poses a challenge in clinical context of septic shock.[3] Ketamine has been used as an alternative in some studies.[4] Hypotension leading to cardiovascular collapse can develop in hypovolemic patients with any induction agent because of interruption of compensatory sympathetic outflow and the sudden change to positive-pressure ventilation.[2] Left uterine displacement during ACLS plays an important role for successful resuscitation in pregnancy.

CONCLUSION

Our case emphasizes the importance of judicious use of induction agents in the management of critically ill patients. This case also adequately demonstrates the need to understand the etiology of hypoxia and ACLS algorithm in pregnancy.